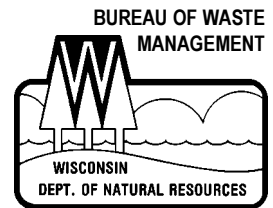




RECYCLING NEWS

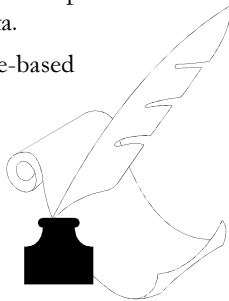
* SUMMER 1999 *



Changes to the State's Recycling Program Likely

As part of the state budget bill (AB 133) introduced in February, Governor Thompson proposed significant changes to the current state recycling program. The proposals would:

- * Eliminate the surcharge on Wisconsin businesses which funded state recycling programs and grants since 1991.
- * Eliminate all state assistance to Responsible Units (RUs) after July 1, 2001.
- * Reduce financial assistance to RUs to \$20 million in fiscal year (FY) 1999-2000 and to \$15 million in FY2000-2001.
- * Set a cap on annual municipal grants at \$8 per capita.
- * Eliminate the volume-based fee requirement.
- * Reduce DNR staff by 10.75 positions in FY1999-2000 and by another 7.75 positions in FY2000-2001.
- * Continue the UW-Extension's Solid and Hazardous Waste Education Center with a six percent increase in funds.



- * Continue the DNR Waste Reduction and Recycling Demonstration Grant program at \$1 million for FY1999-2000 and reduce the program to \$500,000 in FY2000-2001.
- * Fund the Department of Corrections' computer recycling program at \$500,000 in FY1999-2000 and FY2000-2001.
- * Fund the Wheelchair Recycling Program at \$75,000 in FY1999-2000 and \$50,000 in FY2000-2001 through the DNR Demonstration Grant Program.
- * Reduce the Recycling Market Development Board (RMDDB) staff by two positions effective FY1999-2000.
- * Eliminate additional funding for the RMDDB but allow loan repayments to be used to continue programs (currently the RMDDB has approximately \$2 million in the fund).
- * Eliminate the Department of Administration staff position responsible for overseeing purchase of recycled products.
- * Shift the Department of Agriculture, Trade and Consumer Protection positions to reflect their duties more accurately.

The Joint Finance Committee is currently reviewing the budget bill. After the Committee completes its debate and amendment of the bill, it votes on the revised document and sends it to the Legislature. This year it goes first to the Assembly and then to the Senate for debate and amendments. Both houses must agree on identical language before final passage and referral to the governor. This final agreed upon bill is usually worked out by conference committee, composed of three members of each house.

After final passage of the consensus bill, the budget is sent to the governor for his review and signature. The governor has the power to veto, in whole or in part, sections of the budget. If the governor vetoes any section of the budget, the bill is returned to the Legislature, which can override a veto by a two-thirds vote of each body. None of Governor Thompson's vetoes has been overridden.

Ideally the Legislature will pass the budget by July 1, the day the new state fiscal year begins. The governor normally signs the budget about four to six weeks after the Legislature passes it. *



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- * Northern Regional Focus p. 6-9
- * Events calendar p. 9

...and much more!

*
About 47 percent of the state's population is served by curbside collection programs, 36 percent is served by a combination of curbside and drop-off services, and 11 percent by drop-off only recycling programs.
*

To Burn or Not to Burn, That is the Question

Summer brings hot sun, swimming in clean lakes, working in the yard and blue skies... full of smoke?

Many people are raking yards, mowing lawns and cleaning garages or storage sheds during Wisconsin's beautiful summer months. But backyard burning of mixed garbage, scrap wood, household items and yard materials can cause ugly problems for neighbors and the state's natural environment.

- * Smoke from burning common household trash can irritate eyes or aggravate breathing conditions like asthma or emphysema, especially in children and the elderly.
- * Smoke can contain formaldehyde, arsenic, benzene, carbon monoxide, dioxin, hydrochloric acid, lead and sulfuric acid. Common household items that seem nonhazardous may release harmful pollutants when burned.
- * Some plastics contain petroleum-based chemicals that create toxic emissions like hydrochloric acid and dioxin. Formaldehyde, the most common hazardous air pollutant, is almost always produced when materials are burned in the presence of moisture. It is the most prevalent reason for respiratory irritation complaints. Toxic emissions like these affect local and regional air and water quality.
- * Once something is burned it can't be reused or recycled, two waste management options that can extend the life of a product indefinitely.
- * The leading cause of forest fires in Wisconsin is open burning of garbage, causing an average of 40 percent of all forest fires annually.

State regulations prohibit individuals, businesses, industries and municipalities

from burning any banned recyclables (unless in a licensed incinerator). These materials include:

- * Aluminum, steel or bi-metal beverage containers.
- * Glass containers.
- * *Plastic containers #1 and #2.
- * *Plastic containers #3 through #7 if recyclable in your area.
- * *Corrugated cardboard, newspaper, magazines and publications printed on glossy paper.
- * *Office paper (commercially-generated only).
- * Tires, used motor oil and lead-acid batteries.
- * Major appliances.

*Some compostable items may be burned with energy recovery at a licensed incinerator. Contact your municipal recycling coordinator for more information.

Individuals or businesses cannot burn these nonbanned materials under any conditions:

- * Wet, combustible rubbish such as wet cardboard or paper.
- * Oily substances such as oily or greasy rags, oil filters, etc.
- * Asphalt such as asphalt shingles or tar paper.
- * Plastics of any kind including containers and bags.
- * Rubber products like tires or hoses.

Individual property owners may not burn structures like houses, sheds, cabins, garages, etc. at any time.

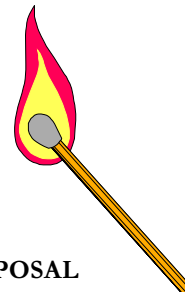
WHAT CAN BE BURNED?

The state does allow residents to burn small amounts of clean, nonbanned recyclable paper generated at home, unless prohibited by local ordinances.

You must obtain a free burning permit from a ranger station or fire warden before burning anything. Be sure to contact local government representatives or ask a fire warden about local restrictions when you request a permit. Your regional DNR waste specialists can also answer questions about what can and can't be burned.

CAN I BURN YARD MATERIALS?

Organic materials like leaves, grass clippings and other woody vegetation may be burned by individuals in small amounts after obtaining a DNR or local burn permit. However, this is discouraged because of air pollution and smoke. Instead, yard materials can be composted in backyard bins or may be collected at the curb by municipal composting programs.



WHAT ARE SAFE DISPOSAL OPTIONS?

The DNR recommends these alternatives to burning:

- * Reduce your use of disposable items by purchasing similar products in recyclable materials. Buy in bulk or larger sizes to reduce the number of containers you generate.
- * Reuse what you can. For example, bring unwanted household items to resale stores; bring plastic and paper bags with you when you shop. Use plastic tubs to store leftovers instead of purchasing ready-made food storage containers.

Continued on next page.

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Copy Editor & Designer: M.J. Kelly, (608) 267-7582.

Contributors to this issue: Dan Fields, Mary Kohrell, Kathy Oppegard, Lissa Radke, Joel Stone.

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The Department of Natural Resources is an equal opportunity employer functioning under an Affirmative Action plan. Copies of this document are available in alternative format by calling (608)267-7566.

- * Recycle all banned items.
- * Compost organic materials in a backyard pile or bin. Chip wood brush and use chips as garden mulch.

WHERE CAN I GET MORE INFORMATION?

For descriptions of DNR publications describing burning regulations in more detail, see the section called "For More Information" in this newsletter. Copies of educational materials can be ordered and distributed to your residents or employees.

WHAT CAN A BUSINESS BURN?

There are additional burning restrictions for commercial locations. Use the form on page 11 to order *Facts on Open Burning for Businesses, Industries and Municipalities* to get more information about what businesses and small industries can burn. *



Three DNR program areas regulate open burning: forestry, solid waste and air management. The combination of these rules means open burning of most waste materials is prohibited. Local ordinances can also prohibit the few exceptions allowed under state law.

The only items that may be burned by individual property owners under state air pollution control laws are small amounts of dry paper, nonrecyclable paper, leaves, brush, plant clippings and untreated, unpainted wood. Burning even these items, however, can be a fire hazard and a nuisance to neighbors.

From Carpets to Cushions: Nylon Recycling

What do you do with 300-square feet of orange shag carpet that you ripped out of the family room? Let Reynolds Urethane Recycling take the used carpet from under your feet and off your hands.

"Nylon carpets are now recyclable in some parts of Wisconsin," Paul Reynolds, president of Reynolds Urethane Recycling, said. "We're the only company in the state that has a contract with a national company to collect and prepare carpets for remanufacture into new nylon products."

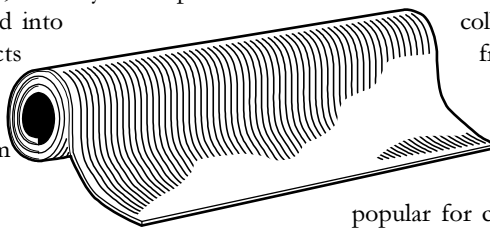
According to Reynolds, dry carpet is a valuable material and should be recycled. The company has also accepted polyurethane foam, including carpet pads, foam mattresses and cushions, for seven years.

In February, Reynolds entered a partnership with AlliedSignal to collect carpets in Wisconsin. Reynolds prepares carpets by chemically testing them to determine whether they are type #6 or #66. These two carpet types represent 70 percent of carpet made in the last 20 years. Reynolds employees bale each type separately and ship them to AlliedSignal.

At AlliedSignal, used nylon carpets are remanufactured into new nylon products such as carpets, clothing and polyurethane foam for seat cushions and furniture.

AlliedSignal is building a plant in Georgia with an annual capacity of 200 to 250 million pounds of recovered carpet. Approximately 4 million to 8 million pounds could come from Wisconsin.

Residents or businesses can bring dry carpets of any size to Reynolds' Middleton site or arrange for a pick up. Reynolds charges a small fee based on the carpet's weight. "The collection fee is usually one-half the normal fee charged by haulers to



have it landfilled," Reynolds added.

There is only one preparation requirement, but it is crucial.

"The carpet can be dirty or torn but it has to be dry," Reynolds emphasized. Wet carpet must be landfilled.

Most of the carpet collected so far has come from over a dozen carpet stores around Dane County. The convenience of the collection process makes it popular for customers and retailers.

Reynolds promotes a take-back program allowing customers to exchange their used carpet for new carpet. Reynolds then collects the old carpet from retailers.

"A carpet business can save thousands of dollars a month in disposal fees by recycling used carpeting instead of paying to have it hauled away," Reynolds said.

For more information, contact Paul Reynolds, 7209 U.S. Highway 14, PO Box 620736, Middleton, WI, 53562; (800) 858-4244. *

*
In the U.S., approximately 4.3 billion pounds (2.15 million tons) of carpet were disposed of in 1997. Only 28 million pounds were recovered for recycling, a recovery rate of 0.65 percent.

According to a study by Franklin Associates, 43,530 tons of carpet were generated in Wisconsin in 1995. About 560 tons were recycled, for a recovery rate of 1.3 percent.

*

Schools Get Vermicomposting Message

In early May, the DNR encouraged schools to reduce food waste through vermicomposting or composting. The following resources were sent to all 12 Cooperative Education Service Agencies (CESAs) and 15 regional reference and loan libraries in the state:

BOOKS

1. *The Worm Café—Mid-Scale Vermicomposting of Lunchroom Wastes*, by teacher Binet Payne. This fun, practical book shows how to set up a vermicomposting system for a school.
2. *Worms Eat Our Garbage—Classroom Activities*, by Mary Appelhof, et. al. This classic book provides start-to-finish information and fun, informative activities for students.

VIDEOS

1. *Wormmania! With Teaching Guide*. Live worms at work captivate young audiences as the worms forage for food. Students will enjoy watching a baby worm hatch from its cocoon.

2. *Worm Bin Creatures, Alive Through a Microscope*. Check out the worm bin's ecosystem as you get a microscopic view of the busy lives of worms, mites, and springtails.

TEACHING MATERIALS AND PUBLICATIONS

1. *Vermicomposting: A Teacher's Guide for Composting with Worms!* This guide includes how-to information and diagrams from the DNR and the University of Wisconsin-Extension.
2. *A New Wiggle on Waste: Using worms to compost food waste and save landfill space*, by the Wisconsin Natural Resources magazine. This publication has excellent photos and information.

OTHER RESOURCES

1. *Recycling & Beyond*. This new activity book from the DNR demonstrates how materials get transformed into new products.
2. *Planet Protector Club*. This resource contains information on how to order this kit for kids from the Environmental Protection Agency.



The Worm Café, Vermicomposting: A Teacher's Guide for Composting with Worms, A New Wiggle on Waste, Recycling & Beyond, and Planet Protector Club were sent to the head librarian of each school district. The DNR also informed school districts' food service directors and elementary and middle school librarians and curriculum coordinators of the availability of these resources.

If you want to borrow these resources, go to your local library and make an inter-library loan request. Additional resources are also still available from the DNR. *

As the Worm Churns...

With spring yielding fresh fruits and vegetables, thoughts turn to feasting on delicious, seasonal produce from backyard gardens and local farmers' markets. Cooking with fresh fruits and vegetables often means a pile of organic scraps. Before sending them into the trash bin, turn those organic materials back into valuable garden fertilizer with free labor: worms.

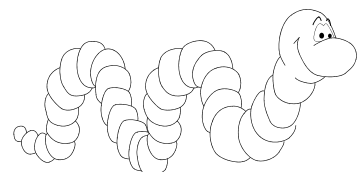
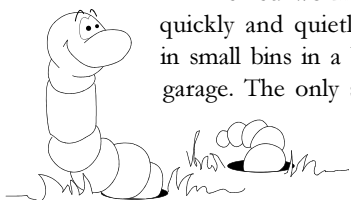
Over 15 percent of an average household's trash is food waste, but a home worm bin can easily divert that waste from landfills. Vermicomposting, or composting with worms, is a clean, efficient process in which red worms transform food waste into castings, or worm droppings.

The red worms work quickly and quietly year-round in small bins in a basement or garage. The only supplies needed are a simple

plastic or wooden container, bedding, red worms and food waste. When properly managed, worm bins are compact, odorless and easy to maintain. After a few weeks, harvest the castings and use them as free fertilizer for houseplants or gardens.

For more information about how to start a vermicomposting bin, order free copies of the DNR's publication *Vermicomposting: A Teacher's Guide for Composting with Worms!* using the form at the end of this newsletter. The booklet includes information about where to get worms, what to feed them, how to care for them, and instructions for building and maintaining a household worm bin.

A New Wiggle on Waste, a supplement to the DNR's Natural Resources magazine, also describes how to establish a vermicomposting system. Full-color photographs make it easy to follow instructions. See the order form on page 13 to order a copy. *



*
Did you read something you liked in this newsletter and want to reuse it in your municipal or company newsletter?
We encourage you to reprint any article—no advance permission is required. Acknowledgment of the source is appreciated but also not required.
*

Master Composters Spread the Dirt About Composting

The University of Wisconsin-Extension's Master Composter training program teaches environmentally-sound yard material management practices to volunteers around the state. Each spring Extension staff holds one-day training workshops for Extension agents, teachers, camp coordinators and enthusiastic individuals. This year's sessions were held in

Milwaukee, Lac du Flambeau, Green Bay and Eau Claire.

Participants spend a day learning how to compost organic materials and build and maintain piles. They also learn about grasscycling and mulching techniques. At the end of the workshop participants receive a 200-page manual and home study course materials, many of which can be reproduced and distributed in their communities.

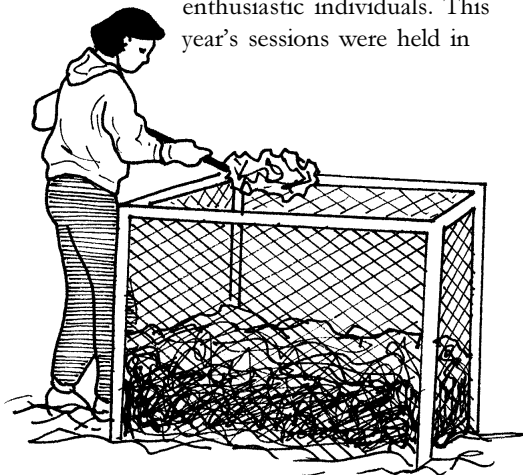
Once trained, master composters hold at least three outreach activities in their communities within a year of completing the workshop. Over 300 volunteers have been trained since the program began in

1994, according to Holly Johnson, Waste Reduction and Management Specialist, UW-Extension, Stevens Point.

To promote composting and waste reduction in your community, arrange for a Master Composter to make a presentation to your residents this summer. Contact Holly Johnson for the names of volunteers in your area.

UW-Extension's web page describes the program and outreach activities in more detail. The address is www.uwsp.edu/shwec/mastcom.

For more information, contact Holly Johnson at (715) 346-2793, or email her at h2johnso@uwsp.edu. After July 15, call Tom Blewett at (608) 262-0936, or email him at blewett@edp.engr.wisc.edu. *



Sustainable Building Materials Available

Is your community challenged by land development issues? Are new housing developments threatening natural areas? Are houses getting bigger and bigger and generating more waste during construction?

Sustainable building practices are alternatives to traditional construction and development methods. By constructing homes and other buildings that minimize negative environmental effects, the quality of life for individuals and the community is improved.

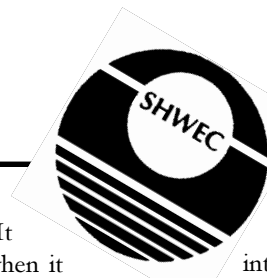
The University of Wisconsin-Extension's Solid and Hazardous Waste Education Center (SHWEC) recently published the following educational materials to help homeowners, builders, architects and land use planners minimize negative environmental impacts:

BUILDING GREEN FOR THE FUTURE

This display describes green building products and practices. It generated considerable interest when it was first shown at the Home Products Show of the Madison Area Builders Association this spring. The display includes many examples of recycled building products.

BUILDING GREEN: A CONSUMER'S GUIDE TO SUSTAINABLE BUILDING

This brochure is useful for anyone who is remodeling, renovating, adding on or demolishing including consumers, designers, builders and developers. It offers suggestions for reducing building site wastes and describes recycling options.



GUIDE TO MATERIALS AND SUPPLIES

This fact sheet highlights structural, exterior and interior products made of recycled materials. It lists sources of products like recycled gypsum board, tiles, adhesives, paints and landscape mulch, many of which can be purchased from Wisconsin distributors and retailers.

To order a publication or reserve the display, contact the Madison SHWEC office at (608) 262-0385, or Sherri Gruder at (608) 262-0398. *



THE NORTHERN REGION

In each issue of this newsletter, we highlight waste reduction and recycling programs in one of DNR's five regions. In this issue, we focus on the Northern Region.

Green Star Lights the Way for Green Businesses

Imagine shopping at a store where all waste is recycled at the end of the day, the lights are bright but use a fraction of the energy regular bulbs use and there are no hazardous materials on site. Is it an environmentalist's dream?

Not in the City of Ashland where businesses are making a green dream come true. Many Ashland businesses have joined Green Star, a nonprofit program that helps businesses reduce their waste and minimize their negative impacts on the environment without sacrificing cost-effectiveness. Green Star originated in Anchorage, Alaska, to show that pollution prevention and energy efficiency are not only environmentally-responsible practices, they also save businesses money and attract customers.

Green Star first shone on Ashland in 1995 when a group of students from Northland College, a private environmental and liberal arts school, approached the Ashland Chamber of Commerce about co-sponsoring the program. Ashland's Chamber of Commerce gave the idea the green light and began providing office



support services such as use of a phone, postage and copying.

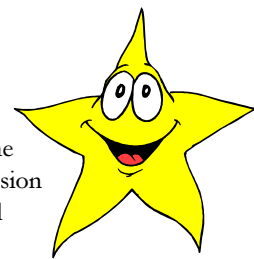
"We offer administrative support, but the students do most of the field work," said Sue Amman, office manager at the Chamber of Commerce. "Each year at least four students coordinate the efforts through a workstudy program, for which they get credit and a salary."

Students recruit businesses through the chamber newsletter, local newspaper articles and door-to-door visits. They audit garbage dumpsters and utility bills to determine where waste is coming from and how it can be reduced. They also help each business adopt simple waste reduction habits like establishing a recycling program and installing energy- and water-saving devices.

"We support Green Star because it makes our businesses more aware of the environment. Many of them directly depend on the environment for their livelihood in this tourism region," Amman said. "We have heard from some businesses that they have drastically reduced their utility and hauling bills. They have really seen some economic benefits."

To become Green Star certified, a business pays a small fee for materials and must complete six Green Star standards:

1. Adopt, post and circulate the Green Star mission statement to all employees.
2. Designate a Green Star Coordinator or team.
3. Conduct an annual waste reduction assessment.
4. Provide three incentives or training opportunities to encourage management and employee participation.
5. Educate customers by publicizing the business' environmental efforts.
6. Assist at least one other business to learn the importance of becoming a Green Star business.



Qualifying businesses then complete six of 12 waste reduction or energy-saving practices, such as "Reduce your business' use of toxic materials," or "Purchase recycled/reusable materials." Some businesses have set goals to accomplish all 12 standards, making them a shining example of Green Star success.

For more information about Green Star or to receive a starter packet, call Sue Amman at (715) 682-2500. *

Merrill Manufacturing: Waste Saving Success

Merrill Manufacturing Corporation in Merrill is one of the country's leading producers of custom wireforms and welded wire assemblies for commercial, industrial and consumer applications. Over 150 people are employed at the Lincoln County facility, which was established in 1916.

The company implemented a Hazardous Waste Elimination Program in 1996 to eliminate waste sludge, a byproduct of the zinc plating procedures the company uses to make items like springform cake pans and air conditioner grills. The sludge is composed of zinc, iron, chromium, other metals, chemical residues and water.

Prior to 1995, Merrill Manufacturing transported 50 tons of sludge to landfills annually. Merrill cut that number drastically in 1997 when they shipped almost 22 tons of sludge to processors that remove the metals from sludge. Some of the reclaimed byproducts are incorporated into cement mixtures used by the construction industry.

This new recovery method saved Merrill Manufacturing \$195 per ton in disposal costs, or almost \$4,300 in six months. The company now spends less money to ship and treat the wastes than it did to landfill it.

Before implementing waste reduction

practices, Merrill Manufacturing sent 30,000 gallons of water used during manufacturing processes to a sewage treatment facility. After purchasing special metering equipment, the company now recycles 20,000 gallons of water a day. The water is reused twice—first to cool welding equipment, then as rinse water in the plating lines. This operational change saves the facility \$15,000 per year and reduces the burden on local municipal water treatment facilities.

In recognition of these waste reduction practices, Merrill Manufacturing received the Governor's Award for Excellence in Hazardous Waste Reduction in 1998. Only seven Wisconsin corporations received the award last year. Carl

Continued on next page.

Recycling News

Northward Books Goes Green



Many bookstores carry books about saving the environment. However, a shop in Ashland is doing their business by the book.

"We joined the Green Star program four years ago when it was introduced in this community," Steve Sorenson said. He is a co-owner of Northward Books in Ashland County. "My wife, Julie, and I have tried to live a simple lifestyle by reducing our consumption of things. Being green was something we've always done at home so we were excited to extend these practices to our business. We ask it of everybody who works here, too."

Northward Books is one of several small businesses located in a homey, red brick building on the shores of Chequamegon Bay, Lake Superior. When the Green Star program started in the area, Northland College students conducted several environmental audits of the store and gave the Sorensens ideas on how to go greener. Asking suppliers to send merchandise

only in reusable or recyclable materials proved to be a highly successful change.

"On Earth Day last year we sent a letter to all of our suppliers and told them we would no longer accept foam packing peanuts in our shipments," Sorenson said. "As a result, virtually all of them send us merchandise in degradable peanuts or newspaper. The suppliers were absolutely responsive to this request."

The Sorensens have incorporated these additional waste reduction and recycling

standards in the store's operation:

Reuse mailing envelopes and packing materials. Northward Books saves resources and money by shipping books to customers in envelopes or boxes received from book suppliers.

Reuse backs of office paper and blank sheets of paper received in direct mailings. The Sorensens print monthly budgets, financial records, in-house posters and special order request forms on reused paper.

Ask customers if they want bags for purchases. Sorenson says customers are happy to forget the bag and help save a tree.

Recycle all cardboard, office paper, cans, glass and plastic containers. The shop not only recycles their materials; employees are encouraged to collect littered cans and bottles from around the building and a nearby alley.

Cooperate with several offices in the building to establish a collection site. Each business helps keep materials separated and the site cleaned.

Replace incandescent light bulbs with energy-efficient bulbs. Incandescent bulbs cost more initially but save money since fewer bulbs are purchased.

Recycle fluorescent light bulbs. The Sorensens store the bulbs safely in boxes until Ashland has a Cleansweep collection day. These free events are held in many communities to collect hazardous materials from residents and small businesses.

- * Oil spilled on the floors is recycled with a licensed processor.
- * All tool cleaning solvents are recycled with Safety Kleen.
- * Heat given off by compressors heats the facility. Each 100HP compressor generates the same amount of heat as a 150-200 BTU heater.
- * All corrugated cardboard, office paper and magazines are recycled, as are steel shavings, scrap metals, scrap powder-coated parts and foam beads from packaging.
- * Powder from the powder-coating lines is remade into new black powder.

Merrill Manufacturing purchases recycled products whenever possible

Purchase recycled products. Stationery, business cards and computer paper are made of recycled paper and printed with soy ink. The Sorensens ask suppliers for note cards and blank journals printed on recycled paper.

The employees also educate customers about waste reduction and recycling. "We've posted the Green Star standards and plaque in the store and display the Green Star decal on our door so customers know we are involved in a community program," Sorenson said. "We also have educational posters about recycling in the store."

Sorenson is very pleased with Green Star, and he recommends the program to other business owners.

"I wish every business would do these things," Sorenson said. "They would see how it reflects a care for the environment, affects customer's personal lives and has a ripple effect on the community."

In addition to the intangible impact of running a green business, Sorenson says there is no question his business has saved money under Green Star's program. Still, he is philosophical about his store's contributions to environmental improvements.

"Many businesses look only at the bottom line," Sorenson said. "But there's another way to measure success, and that is to see how the overall quality of life is affected."

For more information, contact Steve Sorenson at (715) 682-9772. *

Merrill Manufacturing, continued from previous page.

Mascherosch, who managed Merrill Manufacturing's successful program, has since been designated by Wisconsin Public Service as an energy conservation specialist. He is often a featured speaker about hazardous waste reduction for the Central Wisconsin Purchasing Managers Association.

WASTE REDUCTION IS BUSINESS AS USUAL

Merrill Manufacturing is committed to waste reduction and recycling throughout its facility. According to Carol Allen, Merrill's purchasing manager, the company also established these waste management practices:

including computer paper, envelopes, shipping pallets and cartons. Because of its interest in recycled products, the company is a charter member of the Wisconsin Buy Recycled Business Alliance, a nonprofit organization that promotes recycled products in commercial and industrial sites.

"It's less expensive to do the things we're doing than to try to get around it," said company president, Richard Taylor. "We're saving money and protecting the environment at the same time. The whole concept makes good sense environmentally."

For more information, contact Carol Allen at (715) 536-5533. *



Bad River Tribe Recycles at New MRF

Members of the Bad River Band of Lake Superior Chippewa Indians recently increased the reservations' recycling rate when they expanded their recycling facility and collection programs.

Bad River, a responsible unit in Ashland County, received effective program status in 1994. For three years tribal employees processed nine recyclables by hand in an unheated pole barn. However, the recycling program quickly changed when the tribal council hired Don Corbine as the Recycling and Solid Waste Manager of the Solid Waste Department in 1996.

During Corbine's first year with the assistance of Tribal Grants Writer, Mary Maday, the tribe received a \$230,000 Indian Community Development Block Grant from the federal Housing and Urban Development (HUD) agency. The tribe used the funds to design and build a new material recovery facility (MRF) on the reservation this year.

"It took me a year's worth of discussions with contractors to get specifications for equipment and utilities," Corbine said. "I wanted to design the MRF so it would be a safe and healthy place to process recyclables more efficiently. Our MRF is a 3,600-square foot structure which has in-floor heat, fans and is completely enclosed to protect workers and materials from the elements. We included a kitchen and shower for the employees and an education and meeting room for public use."

The MRF also has space for equipment storage and a material holding area.

A paid crew of four people collects and processes nine recyclables from 630 houses five days a week. Residents can also bring materials to the MRF on Saturdays. Employees sort and bale the recyclables at the MRF, then sell them to markets in Ashland and Superior.

According to Corbine, the tribe has reduced the amount of garbage being landfilled from 20 tons of garbage per month in 1997 to 16 tons in 1998. Almost 69 tons of recyclables were processed at the MRF in 1998 (158 pounds per person). The overall recycling rate is 36.4 percent.

In addition to establishing convenient recycling programs, Corbine continued an

annual spring clean-up event, free tire collections and a school education program.

The annual spring clean-up lasts two weeks and allows residents to get rid of large, bulky or reusable items at no charge. Ten-person crews collect everything from white goods, furniture, clothing, scrap metal and tires from the curb and bring them to the MRF. Reusable items are



sorted from recyclables and donated to area resale stores or the tribal social service agency. In 1998, residents generated 20 dumpsters of materials and 800 tires, much of which was recycled or reused.

Youth are also involved at the MRF. "All youth ages 15 to 18 are required to work at the facility one day a week to sort recyclables," Corbine said. The tribe employs all its young people during summer months to help improve tribal property. They pick up litter along roads, plant flowers and groom playgrounds and ball fields. "We want each child to contribute something to the community, which helps them understand they are responsible for a clean environment while learning job skills," Corbine said.

This year the tribe will hold its first annual Cleansweep event. Corbine received a grant from the US Environmental Protection Agency (EPA) to organize a free curbside collection of hazardous household materials. Materials will be temporarily stored on site until a licensed hauler collects them.



Staff at the Midwestern field office of the Housing and Urban Development agency recently nominated the Bad River Tribe's waste reduction and recycling program for their "Best Practice" award. The award is given to a tribe that develops an outstanding educational program about an environmental issue. According to Mary White, HUD community development tribal relations specialist, the tribe will compete with almost 100 other tribal programs throughout the country in the "Empowering Communities" category. Winners will be announced by the end of June.

Of all the environmental improvements on the reservation, Corbine is most pleased with the Tribal Environmental Management System (TEMS). The EPA allocated funds to develop a tribal environmental plan encompassing every tribally-owned and operated business, department and building. Staff conducted environmental audits of the casino, lodges, administration building, day care center, motor pools and many other locations to determine if there are negative impacts on water, air or waste. Each department received a report defining areas of concern, how to comply with regulations and a work schedule. The tribal council will review and approve the final plans in the next six months. They will then be implemented at all locations.

"We will be able to see exactly where and how we may need to improve our operations," Corbine said. He knows of only a few other locations in the United States using the TEMS program at this point.

Corbine says an ongoing education program helps remind people to recycle. Site attendants hand out brochures to drop-off site users and leave them at the curb. Corbine regularly submits articles to the tribal newspaper. "To get people to participate, they have to be well-educated about what we take and about preparation guidelines," he said.

For more information, contact Don Corbine at (715) 682-7880. *

From the Table to the Compost Bin: Northland Students Recycle Food Waste



Food waste composting is on the menu of waste reduction and recycling practices at Northland College, Ashland. Since 1995

students have separated cafeteria food waste from recyclables in the main dining facility on campus. Todd Rosensteil, a

1995 graduate in Biology and Earth Sciences, initiated the program when he called Gerald Bruno, physical plant director, one spring day.

"This program was started by one student who wanted to reduce the amount of food scraps thrown away every day in the cafeteria," Bruno said. About 1,000 meals are served daily, generating over 300 pounds of organic materials.

Bruno and Rosensteil discussed the benefits of a composting program with campus administrators who readily approved the idea. "We're a liberal arts and environmental college so the administration agreed this was a good way to incorporate sound environmental habits as a learning tool," Bruno said.

Bruno received a DNR Waste Reduction and Recycling Demonstration Grant in 1995 to study the feasibility and economic requirements of a food waste composting program. Originally, the college hoped to market finished compost. The study suggested this might be too costly so the end product is applied only on campus.

According to Bruno, the program is very simple to operate. When finished with a meal, students and faculty bring dishes to a conveyor in the cafeteria and scrape food and paper napkins into 20-gallon plastic tubs. There are no garbage cans in the room.

"Since we don't serve anything in plastic or non-compostable materials, virtually all we have in the tubs is food and some paper," Bruno said. About two to three tubs of material are generated daily.

Every day student employees empty the tubs into garden carts and wheel them

across the street to the three-bin compost area. The students weigh the material and mix it with wood chips used as a bulking agent. They put fresh material in the first bin where it is aerated with a simple homemade tumbling device.

Students designed and constructed an aerator out of a 55-gallon drum, a used tractor motor and chicken wire. The electric motor turns the material and separates the wood chips from the decomposing product. The wood chips are re-mixed in the first pile, while the organic material is shoveled into the second and third bins depending on their rate of decay.

Bruno estimates the campus diverts about 68,500 pounds (34 tons) of food waste a year, saving about \$7,000 a year in disposal costs. Campus landscaping crews use the finished product as a soil amendment at the campus' Environmental Living and Learning Center, a new eco-friendly residence hall. It's also used to plant trees and as garden mulch for flowerbeds.

"We think our biggest impact, however, is by teaching people new habits," Bruno said. "There are over 900 students enrolled here so we know we are getting the message about reusing food waste to everybody at some point."

Since the only cost associated with the program is labor, Bruno figures the program breaks even. "We were lucky to make our own processing equipment, saving us a lot of money in equipment costs," he said. "We use a lot of manual labor because we are small scale, but I'd recommend finding ways to mechanize the process."

"I would encourage other food-producing institutions to try this," Bruno added. "It was easy to establish this and doesn't cost much, but we realize significant savings."

For more information, call Gerald Bruno at (715) 682-1283. *



MARK YOUR CALENDAR

July 1

25% grant payment mailed for the Recycling Grants to Responsible

Unit program's 1999 grantees. For information, contact JoAnne Farnsworth at (608) 267-7154 or farnsj@dnr.state.wi.us.



July 14

Talk & Tour at Target's Distribution Center in Oconomowoc. For more information or an invitation, call WasteCap at (414) 961-1100.

July 20

Council on Recycling in LaCrosse. Contact Dan Fields at (608) 266-5334 or fieldddb@mail01.dnr.state.wi.us.

July 27-28

Wisconsin County Solid Waste Management Association (WCSWMA) meeting in Manitowoc.

August 2

Applications to the DNR Demonstration Grant program are due. For information, contact Sheila Henneger at (608) 266-9426 or hennes@dnr.state.wi.us.

September 26-29

National Recycling Coalition (NRC) Conference in Cincinnati, Ohio. For information, contact NRC, PO Box 79453, Baltimore, Md, 21279-0453.

October 1

Responsible Unit grant applications for 2000 due to DNR regions. For information contact, JoAnne Farnsworth at (608) 267-7154 or farnsj@dnr.state.wi.us.

November 1 (Anticipated date)

Grant offers made to successful applicants from the fall application cycle of the DNR Demonstration Grant program.

What Goes Around Comes Around

A restaurant in Ashland replaced plastic trash bags made of virgin resin with bags made of recycled plastic. Did it:

- a) Cut operating costs?
- b) Stimulate recycling markets?
- c) Save resources in limited supply?

The answer is all of the above.

More and more businesses are training their purchasing agents to look for and purchase products containing secondary materials. The variety of recycled products available for use in offices, schools, hospitals, small businesses and industries is also increasing. Prices for environmentally-compatible choices are now often the same as those for comparable virgin products. Because of expanded product variety and competitive costs, recycled office paper, computer paper, fax paper, toilet tissue, paper towels and tissue are now common in many businesses.

The Wisconsin Buy Recycled Business Alliance (WBRBA) helps businesses find and purchase recycled products from state and national vendors. The alliance was organized in the spring of 1995 by 11 charter members from the Wisconsin

business community. As an affiliate of the national Buy Recycled Business Alliance, the group's mission is to increase the use of recycled products in Wisconsin businesses.

Wisconsin charter members include Baker Manufacturing, Briggs and Stratton Corporation, Heartland Litho, Kondex Corporation, Lakeside Manufacturing, Merrill Manufacturing, Recycled Fibers Division, Repap Wisconsin Inc., Trienda Corporation, Waste Management Inc. and Wisconsin Tissue.

Volunteers for the nonprofit WBRBA provide several services to members: a newsletter, workshops and a web page. The quarterly newsletter promotes green business practices and highlights new products and members.

WBRBA sponsors workshops and conferences to train purchasing agents how to write specifications for purchasing recycled products. Training sessions also help businesses learn more about recycled products and how to use them effectively.

The web page lists recycled content products such as office products, awards, promotional items, parking stops and

construction materials. The site offers a "Product of the Week" highlight, such as tire chips for playground surfaces. There are also sections about recycling equipment, recycling facts and frequently asked questions, recycling art, scholarships, grants and a list of recycling centers. Copies of all issues of the newsletter are also available. The address is: <http://www.buyrecycled.org>.

Jim Wessing, WBRBA President and charter member from the Kondex Corporation, said membership in the association is increasing as the group expands its outreach efforts.

"Sometimes we may pause and ask why we are sorting and separating recyclables from our trash. Maybe you're wondering if the recyclables will be converted into useable products. After listening to members of this association, my answer is a resounding 'yes!'"

For more information, contact Terry Estness, Executive Director, 2408 N. 67th Street, Wauwatosa, WI, 53213; (414) 453-1077; (800) 619-2722; email at WBRBA@aol.com. *

For More Information...

The DNR provides free publications about a variety of waste reduction and recycling topics. To order these publications, use the order form on page 13. Some publications are available on our website at the following address: <http://www.dnr.state.wi.us/org/aw/wm/publications>.

MANAGING USED COMPUTERS

WA-420 99

Computer technology changes quickly, outdated millions of computer components annually. Several components contain hazardous materials like lead and cadmium that can require special handling. This four-page fact sheet describes six management methods for extending the life of unwanted hardware, a case study of a successful computer collection event in Madison, a resource list and a guide to selecting a computer recycler. The publication addresses issues related to household and business computers.

How to Use This Publication

Bring it to computer retail stores, local businesses that have computers, school districts or public locations like libraries.

INFORMATIONAL PAPER #66: SOLID WASTE RECYCLING AND WASTE REDUCTION

Published by the Wisconsin Legislative Fiscal Bureau.

This 42-page booklet summarizes the state's recycling and waste reduction regulations, financial assistance programs, and educational and technical assistance initiatives. It also provides an overview of 1998 municipal and demonstration grant funding.

How to Use This Publication

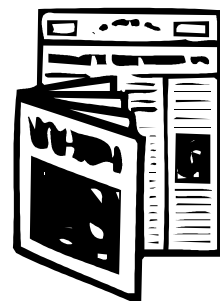
This is a useful guide for recycling coordinators who want to educate their residents and businesses about state recycling progress in the last two years. Include excerpts in municipal or company

newsletter articles, in local newspaper articles or announce the information at town board meetings.

RECYCLING AND BEYOND

CE-254 99

DNR has a new activity/coloring book for pre-school through third grade youth. It replaces the very popular Nature Recyclers Coloring Book. In Recycling and Beyond, kids can track recyclables as they complete the recycling loop, learn to sort recyclables and other items from the waste stream, make compost, reduce waste while shopping and conduct a home recycling survey. The booklets are available in units of 100.



Continued on next page.

For More Information... (continued)

A NEW WIGGLE ON WASTE

CE-243 99

This *Wisconsin Natural Resources* magazine supplement introduces readers to simple vermicomposting methods. Meet some Wisconsin residents who wiggle away their household organic waste and learn how you can, too.

How to Use This Publication

Order copies and bring them to local nurseries, garden centers or public locations in your community.

VERMICOMPOSTING: A TEACHER'S GUIDE FOR COMPOSTING WITH WORMS

CE-244 99

DNR and UW-Extension cooperatively produced this teaching guide on vermicomposting. It includes background materials, teaching activities and instructions on how to construct and maintain a worm composting system in schools.

How to Use This Publication

Order copies for your libraries, area school districts or nature centers.

✱

✱
In 1998, the surcharge on Wisconsin businesses was 2.75 percent of gross tax liability. This surcharge generated \$33.6 million which funded state recycling programs and grants.
✱

The **Bureau of Air Management** offers these publications about open burning. To order, contact Anne Urbanski at (608) 267-0573 or email her at urbana@dnr.state.wi.us. The following publications (except as noted) are available online at the Air Management's website at <http://www.dnr.state.wi.us/org/aw/air/>. Click on Hot Topics to read or print them.

OPEN BURNING GUIDE FOR INDIVIDUAL PROPERTY OWNERS

AM-197

This one-page fact sheet describes state regulations about what individuals can and can't burn. It also suggests alternatives to burning including reducing, reusing, recycling and composting common household materials.

How to Use This Publication

Site attendants can hand them to residents using municipal recycling sites; distribute copies to area fire wardens who issue burning permits.

FACTS ON OPEN BURNING FOR BUSINESS, INDUSTRY AND MUNICIPALITIES IN WISCONSIN

AM-196

This two-page fact sheet describes what businesses can and can't burn and outlines permits needed for commercially-generated items.

How to Use This Publication

Post a copy at the town hall, recycling site and other public locations; distribute to fire wardens; bring copies to Chamber of Commerce meetings or ask that it be included in a chamber newsletter.

OPEN BURNING CHARTA SUMMARY OF OPEN BURNING/ RECYCLING/LANDFILLING REQUIREMENTS IN WISCONSIN

AM-201

Note: This publication is out of print and is only available on the Air Management's web site.

This two-page publication summarizes disposal options for over 20 recyclable and nonrecyclable materials generated by residents and businesses. The information is presented in an easy-to-read table.

How to Use This Publication

Post it in the town hall, recycling site and other public places; distribute copies to fire wardens; distribute to businesses and ask it be posted on company bulletin boards.

THE BURNING QUESTION: OPEN BURNING GUIDANCE FOR DNR STAFF AND PUBLIC OFFICIALS

AM-194 96

Note: This publication is only available in print. It is not on the Air Management's website. Contact Anne Urbanski at (608) 267-0573 to order a copy.

This 30-page booklet details all state restrictions on open burning for residents and commercial locations. It addresses permits and regulations about burning buildings and contains sections of state statutes regarding burning.

This is an excellent guide for municipal board members who must answer residents' questions about what they can and can't burn. ✱

The World of Waste on the Web

ECOMALL SAVES THE EARTH

<http://www.ecomall.com>

If you're looking for environmentally friendly products, green business opportunities, recycled products, eco links or environmental education, stop at the EcoMall. The Net Magazine calls EcoMall one of the top 100 web sites of all time for environmental shopping and education. The site offers exhaustive information about earth-friendly products and services in over 30 categories, including baby care, construction, gardening, cleaning products, and financial investments. EcoMall describes hundreds of recycled or organic products, from pet care to furniture and clothing.

Numerous educational resources like books, videos, catalogs and articles are accessible, as well as links to nonprofit organizations, interviews and speeches, eco chats and upcoming legislation. Recent additions to online articles are "Recycled Plastics Become Art" and "The Corporate Environmentalist."

As PC Computing magazine said, "This is an environmentalist's dream...you'll find lots and lots of eco-friendly items here."

TIRE RECYCLING IS FUN

<http://www.tirerecycling.isfun.com>

One of the recycled products featured at the EcoMall is garden equipment made of reused tires. Paul Farber, a retired commercial illustrator, author, video producer and owner of Re-Tiring, developed Tire Recycling is Fun. His site provides innovative and simple instructions for reusing vehicle tires to make raised gardening beds, compost containers,

plant holders and tree swings. Some of these products or kits can be purchased online, as can the book and video called "Tire Recycling is Fun."

The site lists the benefits of tire reuse and recycling and answers questions about gardening with used tires, including "Are tires hazardous?" and "How do tires pollute the environment?"

Re-Tiring is based in Utah but company representatives make presentations about tire reuse and composting all over the United States. This site offers information about scheduling presentations and fundraising with tire kits.

REUSE IT OR LOSE IT

<http://www.mcswmd.org/reuse.html>

The Solid Waste Management District of Monroe County, Ind., offers free waste reduction and reuse programs to county households and businesses. The district expanded these services to divert usable products from landfills, encourage reuse and save consumers money. This site provides descriptions of six innovative reuse programs: a used building material center, shoe and textile collections, reusable arts and crafts materials, household item exchanges and a paint and household chemical exchange program.

The site provides creative solutions to keep useful items out of landfills and incinerators. It is an excellent site for Wisconsin recycling coordinators who want to know how to expand solid waste programs beyond basic recycling services. (Note: If you do not have web access, you can contact Monroe County's Director of Marketing and Education at (812) 349-2866 for information about starting these reuse programs.)

LIVING BUILDING

<http://www.context.org/ICLIB/IC35/Worth.htm>

The nine-story Audubon House in Manhattan, N.Y., is loaded with environmentally-conscious and energy-efficient designs, making it one of the first eco-friendly office buildings in the country. From basement composting to rooftop skylights, this recycled 19th century structure is cost-effective, functional and beautiful. The benefits of retrofitting the building include cleaner indoor air, softer lighting, lower energy bills, easy recycling opportunities and cheaper refurbishing than conventional options.

The innovative design includes:

- * Separate chutes for at least five kinds of recyclables. The chutes carry the materials to a basement sorting area.
- * Recycled materials in countertops, floors, drywall, insulation and wood structures.
- * Thermal-resistant windows.
- * High-efficiency heaters and coolers.
- * Energy-efficient light bulbs, clerestory windows, motion sensors, skylights and dimmers.

Visit this site if you're planning to build or remodel municipal or commercial buildings. The site also hosts a Sustainable Culture Information Service that provides over 1,000 articles about environmental building issues and solutions.

*

We highlight several web sites in each issue of this newsletter. Inclusion in the newsletter does not represent a departmental endorsement of the sites. Send information about your favorite sites to the Managing Editor (address on page 2). *



PUBLICATIONS - June 1999

If you would like copies of any of the publications summarized in the *Recycling News*, please provide the information requested below and then mail to DNR Recycling Publications by folding this sheet with the DNR return address facing out. You may also order publications by calling (608) 267-7566 or faxing your request to (608) 267-2768.

Your Name: _____ Phone: _____

Organization Name: _____

Address: _____ City/State: _____ Zip: _____

Please indicate how many copies of each publication you wish to receive:

____ New! *Managing Used Computers: A Guide for Businesses & Institutions*, fact sheet, WA-420 (Max. 10)

____ New! *Recycling and Beyond*, coloring book, CE-254 (Max. 200)

____ *A New Wiggle on Waste*, DNR magazine supplement, CE-243 (Max. 100)

____ *Vermicomposting: A Teacher's Guide for Composting with Worms*, activity guide, CE-244 (Max. 5)

____ *Relax, Let Nature Do the Work!*, poster, IE-172

____ *Before You Mow. . .Did You Know. . .*, hang tag, SW-159

____ *Home Composting: Reap a Heap of Benefits*, brochure, SW-072 (Max. 500)

____ *Home Composting: The Complete Composter*, brochure, SW-182 (Max. 500)

____ *Yard Care: Do Your Share*, brochure, SW-073 (Max. 500)

____ *Solid Waste Recycling and Waste Reduction #66*, Wisc. Legislative Fiscal Bureau informational paper, WA-359 (Max. 2)

Several recycling publications are now available on our website at the following address:

<http://www.dnr.state.wi.us/org/aw/wm/publications>

PLEASE GIVE US YOUR FEEDBACK:

1. Did you find the information in the *Recycling News* useful? ☐ Yes ☐ No

If not, why not? How can we make it more useful? _____

2. Do you have any ideas or suggestions that you would like to see included in a future issue of *Recycling News*? _____

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